

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

Michigan Motor Technologies, LLC,

Plaintiff,

v.

Bayerische Motoren Werke AG and
BMW of North America, LLC,

Defendants.

No. 22 CV 3804

Judge Lindsay C. Jenkins

MEMORANDUM OPINION AND ORDER

Plaintiff MMT Michigan Motor Technologies, LLC (“MMT”) brings suit against Defendants Bayersche Motoren Werke AG (“BMW AG”) and BMW of North America, LLC (“BMW NA”) for patent infringement. Currently before the Court are BMW AG’s motion to dismiss MMT’s Second Amended Complaint [Dkt. 42] and BMW NA’s motion to dismiss MMT’s Second Amended Complaint [Dkt. 40]. For the following reasons, both motions are granted in part and denied in part.

As to BMW AG, MMT has not met its burden to show that BMW AG was properly served with process, but MMT may seek to do so under the Hague Service Convention. The Court declines to rule on BMW AG’s remaining Rule 12(b)(6) arguments before personal jurisdiction has been established, so the motion is otherwise denied.

As to BMW NA, MMT’s claims for infringement of the asserted claims of the ‘540, ‘260 and ‘482 patents (Counts I, IV and VI) are dismissed with prejudice. The asserted claims fail under the Supreme Court’s two-step test for patent eligibility as

articulated in *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014). Additionally, MMT has not plausibly alleged that it is entitled to pre-suit damages as to Counts II (the '565 patent) or more than sixteen days of damages on its '122 patent Count V (the '122 patent), but MMT has leave to amend if it can do so consistent with this Order.

I. Background

The following facts are drawn primarily from MMT's governing Second Amended Complaint [Dkt. 37.] MMT is a Michigan limited liability company with a place of business in Sylvan Lake, Michigan. Since August 28, 2017, MMT has been "the owner by assignment" of a portfolio of patents, including six that form the basis of this action: U.S. Patent Nos. 6,557,540 ("the '540 patent"), 6,581,565 ("the '565 patent"), 6,581,574 ("the '574 patent"), 6,588,260 ("the '260 patent"), 6,736,122 ("the '122 patents") and 8,909,482 ("the '482 patent") (collectively, the "Asserted Patents"). MMT alleges that it is "the rightful owner of the Asserted Patents" and that it holds "the entire right, title and interest" in them. [Dkt. 37, ¶ 20.] All of the Asserted Patents were issued by the United States Patent and Trademark Office ("USPTO").

Defendant BMW NA is a Delaware corporation with its principal place of business in Woodcliff Lake, New Jersey. BMW NA is registered to do business in Illinois, maintains a certificate of good standing in Illinois, and may be served with process in Illinois through its registered agent, CT Corporation System. BMW NA is a wholly-owned subsidiary of Defendant BMW AG. The complaint alleges on information and belief that "Defendants maintain offices in Schaumburg Illinois, within this Judicial District," where over fifty BMW associates work to provide

support for aftersales, marketing, finance, and other functions. According to the complaint, the Schaumburg office is owned by BMW NA and is divided between BMW's central region office and technical training for BMW and MINI dealers. [Dkt. 37, ¶ 7.]

Within the last six years, Defendants have made and imported two types of engines which are the subject of this lawsuit: the BMW 2.0L I4 N26 and the BMW B48 (together, the "Accused Instrumentalities"). MMT alleges on information and belief that the Accused Instrumentalities have been installed in the following types of vehicles: the BMW 1 Series (model years 2016 through 2019); the BMW 2 Series (2016 to present); the BMW 3 Series (2015 to present); the BMW 4 Series (2016 to present); the BMW 5 Series (2017 to 2021); the BMW 6 Series (2017 to present); the BMW 7 Series (2016 to present); the BMW X3 (years unspecified); the BMW X4 (2018 to present); the MINI Cooper S Clubman (2019 to present); the MINI Countryman (2019 to present); the MINI John Cooper Works GP (2020 to present); the Toyota Supra (2019 to present); and the Morgan Plus Four Vehicles (2020 to present). [See Dkt. 37, ¶ 15.] Defendants have also made and imported a third type of engine, the BMW 2.07 I4 N20 ("HEV Accused Instrumentality"), which on information and belief has been installed in BMW X5 xDrive40e vehicles (2015 to 2018). [*Id.*, ¶¶ 16-17.]

MMT brings a six-count complaint alleging that Defendants' Accused Instrumentalities and HEV Accused Instrumentality infringe its six patents. Count I is based on "at least claim 1" of the '540 patent, which is entitled "Method of Calculating a Valve Timing Command for an Engine." [Dkt. 37, ¶¶ 22, 24 & Ex. 1.]

Count II is for infringement of “at least claim 7” of the ‘565 patent, “Engine Torque Controller.” [*Id.*, ¶¶ 28, 30 & Ex. 4.] Count III alleges infringement of “at least claim 1” of the ‘574 patent, “Method of Controlling Fuel Rail Pressure.” [*Id.*, ¶¶ 34, 36 & Ex. 7.] Count IV concerns “at least claim 11” of the ‘260 patent, for a “Electronic Throttle Disable Control Test System.” [*Id.* ¶¶ 40, 42 & Ex. 10.] Count V alleges infringement of “at least claim 2” of ‘122 patent, entitled “Motor Vehicle Engine Synchronization.” [*Id.* ¶¶ 46, 48 & Ex. 13.] Finally, Count VI alleges infringement of “at least claim 1” of the ‘482 patent, which covers a “Device for Measuring Power Consumption and Performance with Respect to the Environment of a Power-Consuming Unit.” [*Id.* ¶¶ 52, 54 and Ex. 16.] MMT seeks an adjudication that its patents have been infringed, damages for Defendants’ “past infringement ... and any continuing or future infringement,” as well as interest, costs, expenses, an accounting of all infringing actions, and an award of reasonable attorneys’ fees. [See *id.* at 9-10 (prayer for relief).] The Court discusses the particulars of the patents below, to the extent necessary to resolve the parties’ motions.

II. Legal Standards

Since this is a patent case, unique choice-of-law rules apply. Seventh Circuit “law governs non-patent issues, while Federal Circuit law governs issues of substantive patent law.” *Medicines Co. v. Mylan Inc.*, 936 F. Supp. 2d 894, 899 (N.D. Ill. 2013) (citing *In re Spalding Sports Worldwide, Inc.*, 203 F.3d 800, 803 (Fed. Cir. 2000)). “Federal Circuit law may also govern any substantive or procedural issues ‘intimately involved in the substance of enforcement of the patent right.’” *Id.* (quoting

Flex-Foot, Inc. v. CRP. Inc., 238 F.3d 1362, 1365 (Fed. Cir. 2001)). “Regional circuit law, however, applies to procedural questions not themselves issues of substantive patent law unless they (1) pertain to patent law, (2) bear an essential relationship to matters committed by statute to the exclusive control of the Federal Circuit, or (3) clearly implicate the responsibilities of the Federal Circuit in a field within its exclusive jurisdiction.” *Id.* (citing *GFI, Inc. v. Franklin Corp.*, 265 F.3d 1268 (Fed. Cir. 2001)).

Defendants move to dismiss MMT’s complaint pursuant to Rules 12(b)(5) and 12(b)(6) of the Federal Rules of Civil Procedure. A Rule 12(b)(5) motion is used to enforce service of process requirements. See *Paulsen v. Abbott Laboratories*, 368 F. Supp. 3d 1152, 1163 (N.D. Ill. 2019). The plaintiff “bears the burden to demonstrate that the district court has jurisdiction over each defendant through effective service.” *Cardenas v. City of Chicago*, 646 F.3d 1001, 1005 (7th Cir. 2011). If the Court determines that the plaintiff has not met that burden and lacks good cause for not perfecting service, the Court must either dismiss the suit or specify a time within which the plaintiff must serve the defendant. Fed. R. Civ. P. 4(m); see also *United States v. McLaughlin*, 470 F.3d 698, 700 (7th Cir. 2006). The Court’s decision on a Rule 12(b)(5) motion is “inherently discretionary.” *Cardenas*, 646 F.3d at 1005 (citing *United States v. Ligas*, 549 F.3d 497, 501 (7th Cir. 2008)). In making its determinations on a Rule 12(b)(5) motion, a court may consider affidavits and other documentary evidence. See *Zausa v. Pellin*, 2017 WL 2311232, at *4 (N.D. Ill. May 26, 2017); *Dumas v. Decker*, 2012 WL 1755674, at *2 (N.D. Ill. May 16, 2012).

A Rule 12(b)(6) motion challenges the sufficiency of the pleadings. “To survive a motion to dismiss under Rule 12(b)(6), plaintiff’s complaint must allege facts which, when taken as true, ‘plausibly suggest that the plaintiff has a right to relief, raising that possibility above a speculative level.’” *Cochran v. Illinois State Toll Highway Auth.*, 828 F.3d 597, 599 (7th Cir. 2016) (quoting *EEOC v. Concentra Health Servs., Inc.*, 496 F.3d 773, 776 (7th Cir. 2007)). The Court “accept[s] all well-pleaded facts as true and draw all reasonable inferences in plaintiff’s favor.” *Id.* at 600 (citing *Tamayo v. Blagojevich*, 526 F.3d 1074, 1081 (7th Cir. 2008)). The Court reads the complaint and assesses its plausibility as a whole. See *Atkins v. City of Chicago*, 631 F.3d 823, 832 (7th Cir. 2011). Written instruments that are attached to the complaint are considered to be “a part of the pleading for all purposes.” Fed. R. Civ. P. 10(c). The Court may consider documents attached to a motion to dismiss if they are “(1) referenced in the plaintiff’s complaint, (2) concededly authentic, and (3) central to the plaintiff’s claim.” *Financial Fiduciaries, LLC v. Gannett Co., Inc.*, 46 F.4th 654, 663 (7th Cir. 2022).

III. Analysis

A. BMW AG’s Motion to Dismiss [Dkt. 42]

BMW AG moves to dismiss the complaint for ineffective service of process as well as failure to state a claim. The Court considers the threshold issue of service first. MMT filed this lawsuit on July 22, 2022 and a summons for both Defendants was issued that day. MMT attempted to serve BMW AG with process on three occasions, only one of which is relevant to the Court’s analysis here. [See Dkt. 43 at

7.]¹ On September 2, 2022, MMT's process server went to BMW NA's facility in Schaumburg, Illinois and handed the summons to a BMW NA employee with the title of regional technical training manager ("Training Manager"). The Training Manager received the documents. [*Id.* at 8.] BMW AG argues that service was improper under governing Illinois law because "neither BMW NA nor the Training Manager who was served is an officer, registered agent, or other agent of BMW AG for purposes of service." [*Id.* at 9.]

Federal Rule of Civil Procedure 4(h) governs service of process on a corporation. As is relevant here, Rule 4(h)(1)(A) authorizes service of "a 'domestic or foreign corporation' in a judicial district of the United States" "in the manner prescribed by Rule 4(e)(1) for serving an individual." Rule 4(e)(1), in turn, provides that, unless federal law provides otherwise, an individual within a judicial district of the United States may be served by "following state law for serving a summons in an action brought in courts of general jurisdiction in the state where the district court is located or where service is made"—here, Illinois. Under Illinois' long-arm statute, "[a] private corporation may be served (1) by leaving a copy of the process with its registered agent or any officer *or agent* of the corporation found anywhere in the State; or (2) in any other manner now or hereafter permitted by law." 735 ILCS 5/2-204 (emphasis added); see also *Taeb v. Ritchey Const. Co.*, 602 N.E.2d 489, 491 (Ill App. Ct. 1992) ("The Code of Civil procedure clearly permits a party to serve any agent of a private

¹ MMT does not dispute that its attempts to effect service through the Hague Convention and under Delaware law were ineffective.

corporation found in Illinois, as well as the corporation's registered agent for service of process.").

Illinois' long-arm statute has been interpreted to authorize service of process on a foreign corporation through its domestic subsidiary in Illinois, making the subsidiary the parent's "involuntary agent" for service of process. See *Schlunk v. Volkswagenwerk Aktiengesellschaft*, 503 N.E.2d 1045, 1053 (Ill. App. Ct. 1986), *aff'd*, *Volkswagenwerk Aktiengesellschaft v. Schlunk*, 486 U.S. 694, 706 (1988) ("the Illinois long-arm statute authorized Schlunk to serve [parent company] VWAG by substituted service on [subsidiary] VWoA, without sending documents to Germany"). When process is served using this method, the Hague Service Convention does not apply. *Schlunk*, 486 U.S. at 707 ("Where service on a domestic agent is valid and complete under both state law and the Due Process Clause, our inquiry ends and the Convention has no further implications.").

Therefore, we start with Illinois law to determine whether service on BMW NA's Training Manager satisfied 735 ILCS 5/2-204. This involves two questions: First, whether the Training Manager was an "agent" of BMW NA, and second, whether BMW NA is in turn an "agent" of BMW AG. The Court starts and ends with the first question, which is dispositive due to MMT's failure to establish that the Training Manager is an "agent" of either BMW NA or BMW AG as that term is used in the Illinois long-arm statute.

Under Illinois law, "when a corporation is sued, a return [of service of process] is not conclusive as to the fact of agency." *MB Financial Bank, N.A. v. Ted & Paul*,

LLC, 990 N.E.2d 764, 775 (Ill. App. 2013). Instead, “[f]or service of process on a corporation to be effectively made upon an agent of defendant, such agent must have actual authority to accept service on behalf of the corporation.” *Dei v. Tumara Food Mart, Inc.*, 941 N.E.2d 920, 925 (Ill. App. Ct. 2010). Although “there appears to be some disagreement among Illinois appellate courts as to which party has the burden of proof on the presence or absence of the agency relationship,” the large “majority of courts have held that the burden is on the plaintiff.” *Id.*; see also *In re Subpoena To Huawei Technologies Co., Ltd.*, 720 F. Supp. 2d 969, 972 (N.D. Ill. 2010) (“The party seeking to effectuate service bears the burden of establishing the agency relationship.” (citing *Chung v. Tarom, S.A.*, 990 F. Supp. 581, 583-84 (N.D. Ill. 1998))); see also *Akari Imeji Co. v. Qume Corp.*, 748 F. Supp. 588, 591 (N.D. Ill. 1990) (citing *Slates v. Int’l House of Pancakes, Inc.*, 413 N.E.2d 457, 463 (Ill. App. Ct. 1980)); see generally *Cardenas*, 646 F.3d at 1005 (“The plaintiff bears the burden to demonstrate that the district court has jurisdiction over each defendant through effective service.”); *NBA Properties, Inc. v. Partnerships & Unincorporated Assn’s Identified in Schedule A*, 549 F. Supp. 3d 790, 793 (N.D. Ill. 2021).

“[W]hether an individual served is an agent for purpose of service is a factual question,” which depends on whether the individual “understood the purport of the service of summons” and her “duty to deliver the summons to her employer.” *Island Terrace Apartments v. Keystone Service Co.*, 341 N.E.2d 41, 44 (Ill. App. Ct. 1975) (internal citations and quotation marks omitted); *Esquivel v. DOC Able’s Auto Clinic, Inc.*, 2016 WL 1463768, at *3 (N.D. Ill. Apr. 14, 2016); *Flava Works, Inc. v. Does 1-26*,

2013 WL 1751468, at *5 (N.D. Ill. Apr. 19, 2013); *compare Island Terrace*, 341 N.E.2d at 44 (person who had been employed by corporation as a clerk for six years, was employed only to receive telephone complaints, and did not understand the import of legal summons was not a proper agent of corporation for service of process), *with Megan v. L. B. Foster Co.*, 275 N.E.2d 426, 427-28 (Ill. App. Ct. 1971) (“service upon an intelligent clerk of a company who acts as a receptionist and who understood the purport of the service of summons” complied with statute governing service on corporation by leaving copy of process with its agent).

BMW AG argues that the Training Manager cannot be considered its “agent” under 735 ILCS 5/2-204 because “the Training Manager is not authorized to accept service on behalf of either [BMW] entity, and it is clear he did not understand what it means to be an agent of BMW NA for the purposes of accepting legal papers.” [Dkt. 43 at 13.] In support, BMW AG cites to a declaration from one of its outside attorneys, Brian Biggs, rather than to a declaration from the Training Manager. Biggs does not identify the Training Manager, but Biggs states “on information and belief” that “the Schaumburg facility is not authorized to accept service of process on behalf of BMW NA.” [Dkt. 44, ¶ 6.] Biggs also asserts that the Training Manager “was not authorized to accept service on behalf of BMW NA” and “[t]he Training Manager stated that he did not learn the name or company of the process server, and the process server did not state on whose behalf he or she was providing the documents.” [*Id.*, ¶ 7.] In response, MMT maintains that the Training Manager should be considered BMW NA’s agent because he was an adult; he did not refuse to accept the complaint and

summons when served; “as a Manager [he] understood the import of the summons”; and he “apparently delivered the served summons to his employer, BMW NA, and consequently BMW AG became aware of the summons because BMW AG filed the instant Motion to Dismiss.” [Dkt 53, at 7.]

Based on the sparse record provided, the Court concludes that MMT has not met its burden of establishing that the Training Manager is BMW NA’s or BMW AG’s agent. A finding of agency under Illinois law requires more than simply that the person who accepted service was an adult and did not refuse service. The employee must also “underst[an]d the purport of the summons” and her “duty to deliver the summons to her employer.” *Island Terrace*, 341 N.E.2d at 44 (internal citations and quotation marks omitted). [See also Dkt. 53 at 7; Dkt. 58 at 9-10 (parties’ briefs agreeing on the proper legal standard).]

MMT’s statements that since the Training Manager was a manager he “understood the import of the summons,” as well as MMT’s assumption that the Training Manager delivered the summons to his employer, are entirely speculative. There is no evidence BMW NA Training Managers in Illinois are designated or expected by BMW NA to receive and accept service for either BMW entity, or that they are trained concerning how to handle process servers. BMW AG does not present a declaration from Biggs affirmatively denying that the Training Manager understood the import of the summons or explaining what he did with it when he received, but MMT has the burden of proof. MMT did not seek discovery concerning personal jurisdiction or, more specifically, whether the Training Manager was BMW’s

agent. See *Route 31, LLC v. Collision Centers of America*, 2015 WL 9594474, at *4 (Ill. App. Dec. 30, 2015) (plaintiff did not meet burden of showing employee served with process was defendant’s “agent” where plaintiff’s and defendant’s affidavits “painted starkly different pictures” of employee’s status and plaintiff did not seek an evidentiary hearing). Further, there is no evidence concerning how the summons made its way from the Training Manager to BMW AG. *Dei*, 941 N.E.2d at 926 (where employee who received summons “left it on a table, unopened, as he did with all other papers and documents he received while at work,” this was “further evidence that he did not understand their import”).²

MMT claims that “other courts who have considered whether substitute service on BMW AG through BMW NA is proper have come to the same conclusion” that such service is proper. In support, MMT cites a single unpublished slip opinion from the Eastern District of Texas, *Arigna Technology Ltd. v. Bayerish Motoren Werke AG*, No. 2:21-CV-00172-JRP (E.D. Tex. Jan. 20, 2022). Although MMT claims that *Arigna* is “virtually identical” to its factual situation [Dkt. 53 at 8], it omits a critical fact: that court was interpreting a California statute for service of process, which specifically authorized service in California upon a foreign corporation via its “general manager in [the] state.” [Dkt. 53-1 at 9 (citing Cal. Corp. Code § 2110).] *Arigna*, therefore, tells

² An affidavit from the Training Manager himself would have been the strongest evidence. And Biggs’ declaration “on information and belief” would not suffice at summary judgment because personal knowledge is required. See *USA Gymnastics v. Liberty Ins. Underwriters, Inc.*, 27 F.4th 499, 513 (7th Cir. 2022). But MMT has not objected, so the Court views Biggs as “swearing that he ... makes the averments in good faith upon his ... best information and bona fide belief,” 3 Am Affidavits § 15. Jur. 2d, and the Court looks at the presence of hearsay in determining how to weigh Biggs’ affidavit. See *Robinson Engineering Co. Pension Plan and Trust v. George*, 223 F.3d 445, 451 (7th Cir. 2000).

us nothing about whether BMW AG's Training Manager should qualify as its "agent" under Illinois' long-arm statute and the case law interpreting that term. Since MMT has not established that the Service Manager should be considered an "agent" of BMW NA or BMW AG under 735 ILCS 5/2-204, the Court finds it unnecessary to proceed with the 13-factor analysis for determining whether BMW AG should be considered BMW NA's "agent" under 735 ILCS 5/2-204. See *Chung*, 990 F. Supp. at 584; *Akari*, 748 F. Supp. at 592–93.

That leaves the question of the appropriate remedy. MMT requests that "should the Court decide to dismiss BMW AG," it should "enter an order consistent with MMT's proposed stipulation to dismiss BMW AG" on the conditions that (1) "to the extent that liabilities are found with respect to BMW AG, BMW NA stipulates to such liabilities, including damages"; and (2) "BMW AG agrees that for the purposes of discovery in this matter, all information, witnesses, and documents in the possession, custody, or control of BMW AG, if any, shall be deemed in the possession, custody, or control of BMW NA, but only to the extent they may be relevant to this litigation, and they are not otherwise available from BMW NA." [Dkt. 53 at 15-16.] MMT points to no authority that would authorize the Court to impose this stipulation on BMW AG over its objection. A stipulation is an agreement between the parties, not something the Court can require the parties to accept. Even if the Court had authority to impose a stipulation, MMT's failure to properly serve BMW AG with service of process prevents the Court from exercising personal jurisdiction over it.

BNSF Ry. Co. v. Tyrrell, 581 U.S. 402, 409 (2017) (“a basis for service of a summons on the defendant is prerequisite to the exercise of personal jurisdiction”).

Finally, MMT requests as another alternative that it “be given an opportunity to attempt service under the Hague convention if necessary.” [Dkt. 53 at 16.] BMW AG is amenable to this request; it “simply asks that MMT comply with the Hague Convention and complete service through proper channels.” [Dkt. 58 at 11.] Since the parties agree on the ultimate point that MMT should be allowed to attempt service on BMW AG through the Hague Convention, the Court will exercise its authority to extend the time within which MMT must serve BMW AG. See Fed. R. Civ. P. 4(m); *McLaughlin*, 470 F.3d at 700 (explaining that under Rule 4(m), “if good cause for the delay is shown, the court *must* extend the time for service, while if good cause is not shown, the court has a choice between dismissing the suit and giving the plaintiff more time”); *Paulsen*, 368 F. Supp. 3d at 1163. This will be the Order.

B. BMW NA’s Motion to Dismiss [Dkt. 40]

1. Patent Eligibility

BMW NA moves to dismiss counts I, IV and VI of the Second Amended Complaint on the basis that the asserted claims of the ‘540, ‘260 and ‘482 patents are unpatentable under 35 U.S.C. § 101. MMT argues generally that a Rule 12(b)(6) motion is an “improper vehicle” for patent eligibility determinations since patents granted by the USPTO are presumptively valid and MMT’s patents have been “duly and legally issued” by the USPTO. [Dkt. 54 at 9-10.] But “courts are not required to defer to Patent Office determinations as to eligibility,” *Sanderling Management Ltd.*

V. Snap Inc., 65 F.4th 698, 705 (Fed. Cir. 2023), and “[p]atent eligibility has in many cases been resolved on motions to dismiss or summary judgment.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018). At the motion to dismiss stage, claims may be held patent-ineligible “based on intrinsic evidence from the specification without need for ‘extraneous fact finding outside the record.’” *Secured Mail Solutions LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 912-13 (Fed. Cir. 2017).

According to BMW NA, the asserted claims of the ‘540, ‘260 and ‘482 patents are unpatentable because they are directed to abstract ideas—mathematical calculations and formulations—and do not present any inventive concepts. Section 101 of the Patent Act provides that “[w]henever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101; see also *Weisner v. Google LLC*, 51 F.4th 1073, 1081 (Fed. Cir. 2022); *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166, 67 (Fed. Cir. 2018). “[A]n important implicit exception” to this provision is that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014). Claims “directed to the use of mathematical calculations” are an example of abstract ideas. *In re Board of Trustees of Leland Stanford Junior University*, 991 F.3d 1245, 1250 (Fed. Cir. 2021). “Courts have long held that mathematical algorithms for performing calculations, without more, are patent ineligible under § 101.” *Id.*; see also *Parker v. Flook*, 437 U.S. 584, 595 (1978) (“[I]f a claim is directed essentially to a method of calculating, using a

mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.” (internal citation omitted)); *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972) (finding claims patent ineligible because they “would wholly preempt the mathematical formula and in practical effect would be a patent on the algorithm itself”); *In re Schrader*, 22 F.3d 290, 294 (Fed. Cir. 1994) (a data gathering step of entering bids was “insufficient to impart patentability to a claim involving the solving of a mathematical algorithm”).

In *Alice*, the Supreme Court established a two-step test for examining patent eligibility under § 101. In step one, the Court “determine[s] whether the claims at issue are directed to ... [a] patent-ineligible concept.” *Alice*, 573 U.S. at 217. If so, the Court moves to step two and “consider[s] the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* “The first stage of the *Alice* inquiry looks at the ‘focus’ of the claims, their ‘character as a whole’; and the second stage of the inquiry (where reached) looks more precisely at what the claim elements add—specifically, whether, in the Supreme Court’s terms, they identify an ‘inventive concept’ in the application of the ineligible matter to which (by assumption at stage two) the claim is directed.” *SAP*, 898 F.3d at 1166-67 (quoting *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353-56 (Fed. Cir. 2016)).

a. *Alice* Step 1

The Federal Circuit approaches the first step of the “inquiry by asking what the patent asserts to be the focus of the claimed advance over the prior art.” *Yu v.*

Apple Inc., 1 F.4th 1040, 1043 (Fed. Cir. 2021). In conducting this inquiry, the Court “must focus on the language of the [a]sserted [c]laims themselves, considered in light of the specification.” *Id.* (internal quotation marks and citations omitted); see also *TecSec, Inc. v. Adobe Inc.*, 978 F.3d 1278, 1292 (Fed. Cir. 2020). At step 1 the Court may also examine “whether the claimed advance alleged in the written description demonstrates an improvement of a technological process or merely enhances an ineligible concept.” *Board of Trustees of Leland Stanford Junior University*, 991 F.3d at 1250-51 (citing *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 915 F.3d 743, 750 (Fed. Cir. 2019)). In conducting that inquiry, the focus is on “the language of the [a]sserted [c]laims themselves, considered in light of the specification.” *Yu*, 1 F.4th at 1043. Claims that are “directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery,” rather than “a specific means or method that improves the relevant technology,” do not satisfy *Alice* Step 1. *Id.*

In *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016), the Federal Circuit provided some useful context for its *Alice* framework:

In *Alice*, the Court applied some of its § 101 jurisprudence that preceded the two-step framework, including [*Parker v. Flook*, 437 U.S. 584 (1978)] and [*Diamond v. Diehr*, 450 U.S. 175 (1981)]. In *Flook*, claims requiring the use of a specific equation were unpatentable because they “simply provide[d] a new and presumably better method of calculating alarm limit values.” *Flook*, 437 U.S. at 594–95. The mathematical “formula itself was an abstract idea” and “the computer implementation was purely conventional” because the ‘use of computers for ‘automatic monitoring-alarming’ was ‘well known’.” *Alice*, 573 U.S. at 222 (quoting *Flook*, 437 U.S. at 594). “*Flook* stands for the proposition that the prohibition against patenting abstract ideas cannot be circumvented by attempting to limit the use of [the idea] to a particular

technological environment.” *Id.* (quoting *Bilski v. Kappos*, 561 U.S. 593, 610–611) (internal quotation marks omitted).

The claims in *Diehr*, in contrast, were patentable. The claims likewise “employed a ‘well-known’ mathematical equation.” *Alice*, 573 U.S. at 223 (quoting *Diehr*, 450 U.S. at 177). A computer performed the calculations as part of a broader process for curing rubber, but “the process as a whole [did] not thereby become unpatentable subject matter.” *Diehr*, 450 U.S. at 187. Instead, the Court looked to how the claims “used that equation in a process designed to solve a technological problem in ‘conventional industry practice.’ “ *Alice*, 573 U.S. at 223 (quoting *Diehr*, 450 U.S. at 178). When looked at as a whole, “the claims in *Diehr* were patent eligible because they improved an existing technological process, not because they were implemented on a computer.” *Alice*, 573 U.S. at 223.

McRO, 837 F.3d at 1312-13 (cleaned up). In *McRO*, the court determined that a claim in a patent for automatically animating lip synchronization and facial expressions of three-dimensional animated characters was not directed to an abstract idea, and did not merely invoke generic processes and machinery, where the claim was focused on a specific improvement in computer animation. The claimed improvement allowed “computers to produce ‘accurate and realistic lip synchronization and facial expressions in animated characters’ that previously could only be produced by human animators,” a result that was “realized by improving the prior art through ‘the use of rules, rather than artists, to set the morph weights and transitions between phonemes.’” *Id.* at 1313.

With these examples in mind, the Court examines the three asserted claims that BMW NA challenges in its motion to dismiss.

The ‘540 patent: The ‘540 patent covers “[a] method to calculate timing commands for an engine with variable valve timing” and contains 16 claims. [Dkt.

37-1 at 2 (abstract).] According to the “background” section of the patent, “[i]n gasoline engines of most vehicles, each cylinder of the engine cycles through four unique stages.” [*Id.* at 6.] To go through these stages, the engine’s inlet valves and exhaust valves need to open and close in particular sequence and the engine speed dictates how fast this needs to happen. [*Id.*] The patent background explains that “[m]odern research ... has shown that fuel efficiency and power output of [an] engine may be optimized with an adjustment of the valve timing for a particular load on the engine.” [*Id.*] While “[s]ome variable valve timing engines have been proposed, ... the theoretical fuel efficiency and output power of these engines have not yet been reached.” [*Id.*] “[T]he preferred method” of the invention covered by the ‘540 patent was “specifically created to be performed by a control unit to calculate valve timing commands for an engine with electromagnetic valve actuators,” but may also “be performed by any suitable device to calculate valve timing commands for any suitable engine with any suitable variable timing valves.” [*Id.*]

Claim 1 of the ‘540 patent is for “[a] method for calculating a valve timing command for an engine of a vehicle, comprising: [1]obtaining an engine performance command; [2] receiving an environmental conditions signal; [3] determining a valve feedforward term based on the engine performance command and the environmental conditions signal; [4] receiving an engine performance feedback; [5] calculating a valve feedback term based on the engine performance command and the engine performance feedback; and [6] calculating a valve timing command based on the valve feedforward term and the valve feedback term.” [*Id.* at 7.] The actions of determining

the speed of the opening and closing of the inlet and exhaust valves are accomplished by taking data obtained from various sensors, then—using “preferably” a control unit but alternatively a “suitable separate device”—comparing the sensor data to other sensor data or to a “look-up” table that has been “optimized” with timing information for fuel efficiency, power output, and engine emissions. [*Id.* at 6-7.]

The ‘540 patent, by its title, is directed at a method of calculation, which is an abstract concept. Three of its principal actions consist of obtaining data from signals to be used in the calculations, and three consist of performing the calculations. MMT compares the asserted method claim of the ‘540 patent (as well as the asserted method claims of the ‘260 and ‘482 patents) to *Thales Visionix Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017). MMT describes the invention in that case as “new system of inertial sensors that directly measure the gravitational field of a platform frame and allow positional information to be calculated without reference to vehicle attitude or position of the moving platform.” [Dkt. 54 at 12.] The “sensors measured position and orientation more accurately than the prior art.” [*Id.*] MMT argues that here, as in *Thales Visionix*, the asserted method claim of the ‘540 patent is “patent eligible under § 101 by virtue of the integration of sensor and meter measurements to enhance the efficiency of the process and the platform performing the recited limitations of the method claims.” [*Id.*]

Thales Visionix shows why the claimed method of the ‘540 patent does not satisfy *Alice* step one. The Federal Circuit explained that the claims at issue were “not directed to an abstract idea” because they “specify a particular configuration of

inertial sensors and a particular method of using the raw data from the sensors in order to more accurately calculate the position and orientation of an object on a moving platform.” *Thales Visionix*, 850 F.3d at 1349. “Far from claiming the equations themselves, the claims seek to protect only the application of physics to the unconventional configuration of sensors as disclosed.” *Id.* Therefore, the claims were “not directed to an abstract idea” and survived *Alice* step 1. *Id.*

Unlike the plaintiff in *Thales Visionix*, MMT does not allege any facts suggesting that it is using an unconventional configuration of sensors or using sensors in a non-conventional manner to obtain inputs for its mathematical equations. The claimed method does not require a particular configuration of sensors, or that a particular kind of sensors be used. Stripped of the steps that simply involve taking an input (from either an existing, known sensor or “any suitable device”), all that is left is the mathematical equation, which is performed by comparing the sensor data to other sensor data or to a “look-up” table that has been “optimized” with timing information for fuel efficiency, power output, and engine emissions. [Dkt. 37-1 at 6-7.] Therefore, the Court agrees with BMW NA that the focus of the ‘540 patent’s method claim is the abstract idea of the calculation—a process “for which computers are invoked merely as a tool.” *Braemar Manufacturing, LLC v. ScottCare Corp.*, 816 Fed. Appx. 465, 469-70 (Fed. Cir. 2020). Even if the claim is “drawn to specific technological improvements,” “nothing in the claims requires more than generic data manipulation” such as “execution of a mathematical formula or selection from a lookup table.” *Id.* (agreeing with defendant that patent describing “methods for

selectively transmitting or discarding data acquired from a cardiac signal based on relevance” were “directed to the abstract idea of collecting, classifying, and filtering data” “[a]nd because the claims merely implement those steps using conventional computer technology ... they do not contain an inventive concept”).

The ‘482 patent: The ‘482 patent discloses a “device for measuring power consumption and performance relative to the environment of a power-consuming unit” and contains 16 claims. [Dkt. 37-16 at 2.] The complaint alleges on information and belief that “Defendants have directly infringed at least claim 1 of the ‘482 patent by making, using, selling, importing, offering for sale, providing, practicing, and causing to be used the HEV Accused Instrumentality that infringes the patented device,” [Dkt. 37, ¶ 54], and also “have induced and continue to induce others to infringe at least claim 1 of the ‘482 patent.” [*Id.*, ¶ 57.] Though the complaint references claim 1 (a device claim covering “[a] device for measuring power consumption and performance with respect to the environment of a power-consuming unit comprising a data introduction module ...”), the parties both assume in their briefs that MMT is asserting a violation of claim 9, a method claim. The Court therefore focuses on Claim 9 by the apparent agreement of the parties to treat that claim as representative of the claims in the ‘482 patent.

Claim 9 is “a method of determining an ecological parameter by processor comprising: [1] receiving a first power consumption value of a power consuming unit; [2] receiving a waste production data value, [3] determining an ecological parameter based on the first power consumption value and the waste production data value, and

[4] outputting the determining ecological parameter for display on a display screen.” [Dkt. 1-11 at 7.] The claim includes two inputs, an output, and the calculation of an “ecological parameter,” which “is determined as a percentage based on an algorithm” specified in the ‘482 patent. [*Id.*] The “ecological parameter” looks at a “comparison between the basic actual power flow required by the user for their comfort” in a home, office building, or other structure with “the normal consumptions of the current regulations (e.g. UNE, ISO standards, etc.) and/or those recommended by official administrations of the pace and/or statistic data of normal power consumptions and wastes.” [*Id.* at 5.]

MMT maintains that the ‘482 Patent’s “disclosure of the use of flow meters, electronic meters and measuring scales for measuring power consumption and performance with respect to the environment of a power-consuming unit remove Claim 9 from an abstract idea of ‘mathematical calculations’ and is ‘directed to a new and useful technique for using sensors’ to more efficiently determine power consumption and performance.” [Dkt. 54 at 13 (quoting *Thales Visionix*, 850 F.3d at 1348-49).] The Court is not convinced that this is sufficient to satisfy *Alice* step 1. MMT never disputes or grapples with BMW NA’s argument that the patent specifications simply provide for using readings from conventional sensor components—flow meters, electronic meters and measuring scales—to perform math. Unlike *Thales*, *Diehr*, and *McRO*, the claimed improvement is in the “selection and mathematical analysis of information”—a wholly abstract idea—rather than anything in the physical realm. *Thales*, 850 F.3d at 1345.

The ‘260 patent: The ‘260 patent covers “[a] method for testing the integrity of an electronic throttle disable function” for internal combustion engines and includes 17 claims. [Dkt. 37-10 at 2 (abstract).] The background art section of the patent explains that an electronic throttle control provides improved throttle control and the efficient introduction of fuel air mixtures into the engine cylinders. [*Id.* at 5.] “The electronic throttle control includes a throttle control unit that positions the throttle plate by an actuator controlled by a microprocessor using position feedback sensors. The micro controllers (or micro processors) are often included as part of a powertrain electronic control that can adjust the fuel and air intake and ignition in response to changing conditions of vehicle operations as well as operator control.” [*Id.*]

The purposes of the invention are (1) “to provide an improved and reliable electronic throttle disable control test system”; (2) “to test the electronic throttle driver disable function”; and (3) “to not intrude upon normal throttle operations.” [*Id.* at 5 (summary of the invention).] The complaint alleges on information and belief that “Defendants have directly infringed at least claim 11 of the ‘260 patent by making, using, importing, and practicing, the Accused Instrumentality that infringes the patented apparatus ...” [Dkt. 37, ¶ 42.] Claim 11 covers: “A method for testing integrity of an electronic throttle plate driver disable function controlled by a powertrain control module (PCM) comprising the steps of: [1] disabling said driver; [2] determining a first throttle position value with said driver disabled; [3] commanding full closing voltage; [4] determining a second throttle position value at

said full closing voltage; [5] comparing said first and second throttle position values; and [6] engaging failure mode management when said first and second throttle position values are significantly different.” [Dkt. 37-10 at 7.]

MMT argues that the ‘260 patent’s “disclosure of the use of driver electronics and position sensor voltages for testing integrity of an electronic throttle plate driver disable function removes Claim 11 from an abstract idea of ‘mathematical calculations’ alleged by Defendant.” [Dkt. 54 at 13.] But this is not enough to satisfy *Alice* step 1. “[C]laims focused on collecting information, analyzing it, and displaying certain results of the collection and analysis are directed to an abstract idea.” *SAP*, 898 F.3d at 1167. Claim 11 of the ‘260 patent is directed to determining values (*i.e.*, determining a first and second throttle position in different states), calculating the differences between those values, and directing a result (*i.e.*, engaging failure mode or not) based on that calculation. The calculation is a comparison of values: “[t]he throttle position voltage is ... compared to a predetermined default position voltage” to determine “[i]f there is a significant difference” to allow the user “to detect the voltage difference between default and closed stop.” [Dkt. 37-10 at 7.]

As far as the Court can determine from the complaint, the patent language, and MMT’s brief, the “claimed advance alleged in the written description” of claim 9 of the ‘260 patent is not “an improvement of a technological process” (such as the unique arrangement of sensors in *Thales Visionix*) but an improvement to “the selectional and mathematical analysis of information,” which is a wholly abstract idea not protected under *Alice* Step 1. *Thales Visionix*, 850 F.3d at 1345. The method

steps are performed by, and the complementary system claims recite, known devices using known means to set up the test conditions. For instance, “step [a] where the powertrain control module (‘PCM’) disables the drive electronics responsible for actuating motor 30”; “The sequence then proceeds to step 48 where PCM 16 commands full closing motor voltage”; and “PCM 16 waits approximately 30 milliseconds and then records the resulting throttle position sensor voltage.” [Dkt. 41 at 7]; see also *SAP*, 898 F.3d at 1168 (claimed method did not satisfy *Alice* step 1 where “the focus of the claims is not a physical-realm improvement but an improvement in wholly abstract ideas—the selection and mathematical analysis of information, followed by reporting or display of the results”).

For these reasons, MMT’s arguments fail at *Alice* step 1.

b. *Alice* Step 2

Alice step two “is like a lifeline: it can rescue and save a claim that has been deemed, at step one, directed to non-statutory subject matter.” *Board of Trustees of Leland Stanford Junior University*, 991 F.3d at 1251. Under step 2, “we ‘consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application.’” *Weisner*, 51 F.4th at 1081 (quoting *Alice*, 573 U.S. at 217). “Step two is ‘a search for an inventive concept—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.*; see also *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 72 (2012). “To save a patent

at step two, an inventive concept must be evident in the claims.” *Recognicorp, LLC v. Nintendo Co.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017). “If a claim’s only ‘inventive concept’ is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea.” *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290-91 (Fed. Cir. 2018). Thus, for example, claims that “amount to ‘nothing significantly more’ than an instruction to apply [an] abstract idea . . . using some unspecified, generic computer” cannot make an abstract idea patent-eligible. *Alice*, 573 U.S. at 225-26; see also *Secured Mail Solutions*, 873 F.3d at 911 (“Merely reciting the use of a generic computer or adding the words ‘apply it with a computer’ cannot convert a patent-ineligible abstract idea into a patent-eligible invention.”).

“The question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact.” *Berkheimer*, 881 F.3d at 1368. And “whether a claim recites patent eligible subject matter is a question of law which may contain underlying facts.” *Id.* “Patent eligibility has in many cases been resolved on motions to dismiss or summary judgment.” *Id.* “[T]he invocation of ‘already-available computers that are not themselves plausibly asserted to be an advance ... amounts to a recitation of what is well-understood, routine, and conventional.” *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1366 (Fed. Cir. 2020); see also *Sanderling Management*, 65 F.4th at 705.

MMT has not identified any “factual considerations about the state of the art [that] preclude a decision at the pleadings stage.” *Sanderling Management*, 65 F.4th at 705. In response to the motion to dismiss, MMT argues that Defendant “fails to consider the ordered combination of the claim limitations resulting in the inventive concept found in the non-conventional and non-generic arrangement of known, conventional pieces.” [Dkt. 54 at 14.] But MMT points to no specific allegations in the complaint or the claim limitations that plausibly suggest that the claimed methods in practice amounts to significantly more than the mathematical calculations themselves, using data inputs derived from conventional and well-understood sensors. The court cannot infer an inventive concept without specific allegations that are “more than simply label[ing] ... techniques as inventive.” *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1318 (Fed. Cir. 2019).

The ‘540 patent: MMT argues that “[b]y receiving an environmental conditional signal and engine performance feedback from sensors and determining a valve feedforward term based on the engine performance command and the environmental conditions signal,” Claim 1 of the ‘540 patent “provides a novel and unconventional arrangement and use of known elements in a novel fashion.” [Dkt. 54 at 15.] MMT parrots key words like “novel” and “unconventional,” but there are no factual allegations from which one could plausibly infer that the method claimed in the ‘540 patent is inventive. The method of the ‘540 patent was “specifically created to be performed by a control unit to calculate valve timing commands for an engine with electromagnetic valve actuators,” but may also “be performed by any suitable

device to calculate valve timing commands for any suitable engine with any suitable variable timing valves.” [Dkt. 37-1 at 6-7 (description of the preferred methods; cleaned up).] The patent references a generic device that is not itself “plausibly asserted to be an advance.” *Sanderling Management*, 65 F.4th at 705. The method is specified at a high level of generality using generic functional language (“obtaining an engine performance command”, “receiving an environmental conditions signal,” etc.). Rather, the advance is the mathematical calculation. This is insufficient to plead an “inventive concept” under *Alice* step 2. See, e.g., *Hawk Technology Systems, LLC v. Castle Retail, LLC*, 60 F.4th 1349, 1356-58 (Fed. Cir. 2023) (claims in patent for method for viewing multiple simultaneous videos from surveillance system lacked elements sufficient to transform claims into patent-eligible application, and thus failed second step of *Alice* test for examining patent eligibility, where claims only used generic functional language, and nothing in claims, understood in light of specification, required anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting desired information); *Audio Evolution Diagnostics, Inc. v. United States*, 160 Fed. Cl. 513, 526-27 (Fed. Cl. 2022) (patents for digital stethoscope, which were directed to abstract idea of collecting, analyzing, manipulating, and displaying data, lacked inventive concept sufficient to transform abstract idea into patent-eligible subject matter; patent assignee did not recite specific, plausible factual allegations sufficient to ensure that patents in practice amounted to significantly more than abstract idea itself or more than application of conventional and well-understood techniques).

The ‘482 patent: According to MMT, “each claim limitation of Claim 9 operates together to achieve an unconventional method for measuring power consumption and performance with respect to the environment of a power-consuming unit that takes advantage of an unconventional and novel use of power consumption measurements, flow meters for liquids or gases, voltmeters or scales for measuring waste to exceed conventional techniques in measuring ecological parameters of a powered unit.” [Dkt. 54 at 16.] Despite using the words “unconventional” and “novel,” MMT identifies nothing in the specifications or complaint that suggest there is anything inventive about the claimed method other than the formula for calculating the ecological parameter. Claim 9 simply “append[s] conventional steps, specified at a high level of generality”—“receiving a first power consumption value of a power consuming unit,” “receiving a waste production data value”—to an abstract idea, the calculation of an ecological parameter. *Mayo*, 566 U.S. at 82. “The abstract idea itself cannot supply the inventive concept, no matter how groundbreaking the advance.” *Trading Technologies Int’l, Inc. v. IBG LLC*, 921 F.3d 1084, 1093 (Fed. Cir. 2019).

The ‘260 patent: MMT argues that for the ‘260 Patent, “each claim limitation of Claim 11 operates together to achieve an unconventional method of testing integrity of an electronic throttle plate driver disable function controlled by a powertrain control module (PCM) that takes advantage of drive electronics and position voltage sensors to exceed conventional techniques not to intrude on normal throttle operation while verifying function integrity at least once each time the

vehicle is powered up.” [Dkt. 54 at 15.] Labeling a method unconventional, however, does not satisfy *Alice* step 2.

Bascom Global Internet Services, Inc. v. AT&T Mobility LLC, 827 F.3d 1341, 1348 (Fed. Cir. 2016), on which MMT relies, involved a method for filtering Internet content. [See Dkt. 54 at 14-15.] The claims at issue in *Bascom* failed at *Alice* step 1 because “filtering content is an abstract idea”—“a longstanding, well-known method of organizing human behavior, similar to concepts previously found to be abstract.” *Bascom*, 827 F.3d at 1348. But the appellate court concluded that the district court erred by dismissing the infringement claim at *Alice* step 2. The “inventive concept described and claimed in the ... patent [was] the installation of a filtering tool at a specific location, remote from the end-users”—a remote Internet Service Provider (“ISP”) server—with customizable filtering features specific to each end user.” *Bascom*, 827 F.3d at 1350. The plaintiff explained that the claimed method’s “inventive concept rests on taking advantage of the ability of at least some ISPs to identify individual accounts that communicate with the ISP server, and to associate a request for Internet content with a specific individual account.” *Id.* This was an improvement because “prior art filters were either susceptible to hacking and dependent on local hardware and software, or confined to an inflexible one-size-fits-all scheme.” *Id.* Construing the claim in favor of the plaintiff (as the non-movant) the Court concluded that the claims could plausibly “be read to ‘improve[] an existing technological process.’” *Id.* at 1350-51.

Here, by contrast, the only inventive concept that MMT identifies in the ‘260 patent is using conventional and known “drive electronics and position voltage sensors” to gather the data inputs for an abstract calculation—the comparison the throttle position voltage to a predetermined default position voltage to determine if there is a significant difference. This is insufficient: under *Alice* step 2, the ineligible concept—the calculation using a comparison of values—“cannot supply the inventive concept that renders the invention ‘significantly more than that ineligible concept.’” *Simio, LLC v. FlexSim Software Products, Inc.*, 983 F.3d 1353, 1363 (Fed. Cir. 2020). What MMT is lacking in its claim as currently pled is “an inventive concept in the non-abstract application realm.” *SAP*, 898 F.3d at 1168; see also *Simio*, 983 F.3d at 1364 (claims of patent for method of creating computer simulations using graphical process descriptions, whether individually or as an ordered combination, lacked an inventive concept and thus, did not transform abstract idea of using graphics instead of programming to create object-oriented simulations into patent-eligible invention; the allegedly inventive concept was a claim for new abstract idea, a purportedly novel executable-process limitation, which was implemented by using conventional and well-understood techniques); *Hawk Technology Systems*, 60 F.4th at 1358-59.

For these reasons, the Court agrees with BMW NA that the asserted claims of the ‘540, ‘260 and ‘482 patents are unpatentable under 35 U.S.C. § 101.

2. Compliance with Marking Statute

BMW NA also seeks dismissal on the basis that MMT’s complaint does not plead compliance with the Patent Act’s marking requirement. Specifically, BMW NA

argues that MMT's failure to mark would dispose of several of the asserted patents,³ and would limit one patent's damages to a tiny window of time. According to BMW NA, the '565 patent expired before MMT filed suit, and the '122 patent expired August 7, 2022, 16 days after MMT filed suit. Because MMT cannot plead compliance with the marking statute, BMW NA claims that MMT cannot recover pre-suit damages for the expired '565 patent, and the potential damages related to the '122 patent are *de minimis*. [Dkt. 41 at 18.]

The marking statute, 35 U.S.C. § 287(a), provides that “[p]atentees, and persons making, offering for sale, or selling within the United States any patented article for or under them, or importing any patented article into the United States, may give notice to the public that the same is patented,” by physically marking the article in the manner specified in the statute. If the plaintiff fails to mark in compliance with the statute, it is entitled only to damages incurred after the infringement action was filed. See *Arctic Cat Inc. v. Bombardier Recreational Products Inc.*, 876 F.3d 1350, 1366 (Fed. Cir. 2017). “The patentee bears the burden of pleading and proving he complied with § 287(a)’s marking requirement.” *Id.* (citing *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1111 (Fed. Cir. 1996)).

In response to the motion to dismiss, MMT does not contend that it ever marked any articles with its asserted patents, in compliance with the marking statute. Instead, MMT argues that it was not required to mark because it is asserting

³ BMW NA makes this same argument as to the '260 and '482 patents, but for the reasons discussed above, the Court has already concluded that these patents are directed at subject matter that is not patent eligible as a matter of law under *Alice*.

only method claims in its governing complaint. [See Dkt. 54 at 17.] MMT also argues that it was not required to comply with the marking statute because it never practiced the method claims of the asserted patents. In its reply brief, BMW NA argues that “Federal Circuit precedent suggests that pleading compliance with the marking statute is required where, as here, a patent contains both method and non-method claims.” [Dkt. 59 at 13.] BMW NA does not respond to MMT’s argument that it has not practiced the method claims of the asserted patents.

The parties’ disagreement on whether marking is required for MMT’s method claims arises from two competing lines of Federal Circuit cases. MMT relies on *Hanson v. Alpine Valley Ski Area, Inc.*, 718 F.2d 1075 (Fed. Cir. 1983), and *Crown Packaging Technology, Inc. v. Rexam Beverage Can Co.*, 559 F.3d 1308, 1316–17 (Fed. Cir. 2009), which held that the notice provisions of § 287 do not apply where “the patentee [has] only asserted the method claims of a patent which include[s] both method and apparatus claims.” *Id.* (citing *Hanson*, 718 F.2d at 1082-83). BMW NA relies instead on *American Medical Systems, Inc. v. Medical Engineering Corp.*, 6 F.3d 1523 (Fed. Cir. 1993), which held that “[w]here the patent contains both apparatus and method claims, ... to the extent that there is a tangible item to mark by which notice of the asserted method claims can be given, a party is obliged to do so if it intends to avail itself of the constructive notice provisions of section 287(a).” *Id.* at 1538-89.

American Medical must be read in light of *Crown Packaging*, which distinguished the former case on the basis that the patentee there asserted both

apparatus and method claims of the patent at issue. See *Crown Packaging*, 559 F.3d at 13116-17. Defendant also cites *ActiveVideo Networks, Inc. v. Verizon Communications, Inc.*, 694 F.3d 1312, 1334 (Fed. Cir. 2012), in which the Federal Circuit quoted *American Medical* for the proposition that “[t]he demarcation lines have been clear for many years: patents with only method claims do not require marking whereas patents with apparatus claims do.” *ActiveVideo* does not mention *Crown Packaging* and denied the request to “extend the marking requirement to patents with nothing but method claims, if the patentee also asserts other patents with apparatus claims embodying the same invention in the same litigation.” *ActiveVideo*, 694 F.3d at 1335. As in *American Medical*, the asserted patent in *ActiveVideo* contained only method claims. See *Core Optical Technologies, LLC v. Nokia Corporation*, 2020 WL 6126285, at *6 (C.D. Cal. Oct. 8, 2020).

Courts attempting to read these cases in harmony have continued to hold based on *Crown Packaging* that where a patent contains both method and apparatus claims, but the patentee asserts only the method claims, the marking statute does not apply. See *Infernal Technology, LLC v. Ubisoft, Inc.*, 2021 WL 4037835, at *3 (E.D.N.C. Sept. 3, 2021) (“The marking statute’s applicability also depends on what the plaintiff asserts in the complaint. When a patent contains both process or method claims and some other kind of claim (such as an apparatus claim), the marking statute applies differently when the patentee asserts infringement of the process or method as opposed to infringement of all the patent’s claims.”); *Carnegie Mellon University v. Marvell Technology Group, Ltd.*, 906 F. Supp. 2d 399, 406 (W.D. Pa.

2012) (“If the apparatus claims have not been asserted in the litigation, § 287(a) does not apply and marking of the asserted method claims is unnecessary for a party to claim damages for the entire period of infringement”); *Core Optical Technologies, LLC v. Nokia Corp.*, 2020 WL 6126285, at *5 (C.D. Cal. Oct. 8, 2020) (applying *Crown Packaging*).

Here, the governing Second Amended Complaint asserts only the method claims of the patents in issue. But the application of the case law is complicated by the fact that in the earlier iterations of its complaint, MMT *did* assert the apparatus claims of the patents in issue. Indeed, in its motion for leave to file the Second Amended Complaint, MMT explained that it amended the complaint for the express purpose of avoiding the marking statute by “chang[ing] its assertion of infringement to only method claims.” [Dkt. 35 at 2.] *Crown Packaging* says nothing about whether a patentee can avoid the patent marking statute by dropping any instrumentality claims mid-litigation.

At least two other district courts have confronted a similar factual scenario and refused to allow a patentee to drop instrumentality claims to avoid the patent marking statute. In *Huawei Technologies Co. Ltd v. T-Mobile US, Inc.*, 2017 WL 5165606 (E.D. Tex. E.D. Tex. Oct. 15, 2017), the patent holder argued that the patent marking statute did not apply to the patent-in-suit because it was “currently asserting only method claims.” *Huwei*, 2017 WL 5165606, at *2. The court rejected this argument, concluding that the plaintiff was “not insulated by *Crown Packaging*, which at most only restricts application of the marking statute in instances where a

patent holder never asserted apparatus claims.” *Huwei*, 2017 WL 5165606, at *3. “[A]pparatus claims were asserted, so the marking requirement [was] not excused.” *Id.* at *3 (citing *Unwired Planet, LLC v. Apple Inc.*, 2017 WL 1175379, at *4 (N.D. Cal. Feb. 14, 2017); *Carnegie Mellon Univ. v. Marvell Tech. Grp., Ltd.*, 906 F. Supp. 2d 399, 407 (W.D. Pa. 2012); *Mformation Techs., Inc. v. Research in Motion Ltd.*, 830 F. Supp. 2d 815, 838 (N.D. Cal. 2011)). Likewise, in *Siemens Mobility Inc. v. Westinghouse Air Brake Technologies Corp.*, 2018 WL 7893901 (D. Del. Dec. 17, 2018), the court concluded that the marking statute was applicable to the plaintiff’s patent because the plaintiff “initially asserted an apparatus claim from the [operative] patent.” *Id.* at *4 (citing *Huwei*, 2017 WL 5165606, at *2-3).

The Court finds these opinions persuasive. They recognize *Crown Packaging*’s narrow exception for cases where only method claims are “asserted,” but discourage gamesmanship designed to avoid the patent marking statute once a defendant moves to limit pre-suit damages. These decisions are also consistent with the Federal Circuit’s opinion in *Rembrandt Wireless Technologies, LP v. Samsung Electronics Co., Ltd.*, 853 F.3d 1370, 1383-84 (Fed. Cir. 2017), which rejected a patentee’s attempt to avoid the marking statute by disclaiming a patent claim embodied in an unmarked product. The *Rembrandt* court reasoned that allowing a disclaimer to relieve the patentee of its marking obligation was irreconcilable with the marking statute’s purpose of protecting the public’s ability to exploit an unmarked product’s features without liability for damages. *Id.* The same considerations apply to MMT’s attempt to avoid the requirements of the marking statute by amending its complaint. Because

the apparatus claims were once asserted, the marking requirement is not excused. In its current form, MMT cannot recover pre-suit damages for the expired '565 patent, and pre-suit damages for the '122 patent are limited to 16 days.

This is not quite the end of the inquiry, however. In the very last substantive paragraph of its brief, MMT says it was not required to comply with the marking statute for the additional reason that “MMT never practiced the method claims of the Asserted Patents.” [See Dkt. 54 at 17.] BMW NA’s reply brief does not address this statement.

It is true that the marking statute would not foreclose pre-suit damages if MMT and its licensees never practiced any of the claims of the asserted patents, as there would be no articles to mark. *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1332 (Fed. Cir. 2010) (“If a plaintiff practices the claimed invention and fails to mark its product with the relevant patent number, damages may be limited [by the marking statute.]” (emphasis added)). And the marking statute might not foreclose pre-suit damages if MMT and its licensees never practiced the asserted method claims of the relevant patents but have practiced other claims of the patents—although that does not appear to be a legal question that is clearly settled. See *Rembrandt*, 853 F.3d at 1384 (noting that “[t]he patent-by-patent versus claim-by-claim marking dispute between the parties raises a novel legal issue not squarely addressed by our past decisions” and remanding to the district court to consider issue in the first instance); *Huawei*, 2017 WL 4183103, at *3 (stating in *dicta* but not deciding that “a logical

interpretation of the statute is that a patentee must mark any product covered by any claim of the asserted patent”).]

Although MMT makes this practice assertion in its brief, the fact remains that its argument is not supported by any well-pled allegations in the Second Amended Complaint. The SAC does not specify whether MMT (or its licensees, if any) ever practiced the method claims of the asserted patents. Nor does it specify whether MMT (or its licensees, if any) ever practiced *any* of the claims of the asserted patents (including any instrumentality claims). As a result, dismissal remains appropriate, though MMT is given leave to amend to address this issue, if it wishes to do so.

IV. Conclusion

For all these reasons, BMW AG’s motion to dismiss is granted in part and denied in part. [Dkt. 42]. MMT has until December 1, 2023, to effect service on BMW AG under the Hague Service Convention. Until personal jurisdiction has been established, the Court “need not and should not” reach BMW AG’s Rule 12(b)(6) grounds for dismissal. See *Rawlins v. Select Specialty Hospital*, 2014 WL 1647182, at *6 (N.D. Ill. Apr. 23, 2014); see also *United States v. Park*, 389 F. Supp. 3d 561, 567 (N.D. Ill. 2019) (“Where there has been insufficient process, the Court does not have personal jurisdiction over a defendant.”) BMW AG’s motion is otherwise denied.

BMW NA’s motion to dismiss the Second Amended Complaint is granted in part and denied in part. [Dkt. 40]. Counts I, IV and VI, which raise claims for infringement of the asserted claims of the ‘540, ‘260 and ‘482 patents respectively, are directed at subject matter that is not patent eligible as a matter of law. Leave to

amend would be futile, so the dismissal is with prejudice. See *Maxon, LLC v. Funai Corp., Inc.*, 255 F.Supp.3d 711, 722 (N.D. Ill. May 23, 2017); *Snowcast Solutions, LLC v. Endurance Specialty Holdings, Ltd.*, 2016 WL 1161299, *6 (N.D. Ill. Mar. 23, 2016). Count II does not plausibly allege that MMT is entitled to pre-suit damages for the ‘565 patent under the marking statute. Count V does not allege more than sixteen days of pre-suit damages for the ‘122 patent under the marking statute. Count III as to the ‘574 patent remains undisturbed. Because the marking deficiency might be cured through an amended pleading, MMT is given leave to do so.

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Date: July 21, 2023



Lindsay C. Jenkins
United States District Judge